Signalling intentions and obliging behaviour online: an application of semiotic and legal modeling in E-commerce

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Abstract

Electronic commerce has the potential to deliver goods and services to customers more quickly, cheaply, and conveniently than ever before. But before performance the obligations have to be created. This paper explores the semiotic and legal aspects of online contracts. It reviews speech act theory from philosophers such as Austin and Searle to explain how words and actions can create legal obligations. It then examines English contract law and its requirements to find an abstract basis upon which contract creation can be modeled. Using semiotics and law, the paper thereafter creates a model of the contract creation process and applies it to electronic commerce. Since electronic commerce is so pervasive and extends beyond any particular jurisdiction, the need for high level abstraction and for a model for comparison and cross reference is destined to increase.

By establishing agreements and expectations regarding future actions, contracts enable business to be conducted in a stable context. For example, contracting parties know when to expect deliveries of raw materials, and can thus optimize their manufacturing processes, making gains in efficiency. In addition, if something goes awry and a party breaches the contract, the injured party can seek legal recourse.

In traditional commerce, people create commercial contracts in-person, and the courts and legislature have developed an extensive body of contract law to govern these transactions. Among the legal requirements are the four elements of any contract: offer, acceptance, consideration, and intent to create legal relations, as discussed in Part II. However, these requirements are not merely for the benefit of jurists and legal scholars. Merchants incorporate contract law into their standard business practices not only to satisfy the law, but also to conform with informal norms and to prevent misunderstandings with customers. The four elements of the legal contract derive largely from the fundamentals of any negotiating process. The law has merely formalised the elements and the process. Furthermore, businesses often use the ceremonial aspects of the contract creation process for their “cautionary effect, thereby deterring hasty, premature or ill-considered contracts from being made.”¹ People understand that signing a document creates legal obligations and that should not be taken lightly. However, rituals in the virtual world with similar significance have yet to be established.

The legal and social aspects of contracts have similarly important roles to fulfill in the new world of electronic commerce. Merchants need contracts not only to secure their

¹ A G Guest (1994), Chitty on Contracts, 4-001. (Hereafter, Chitty) Chitty here refers to the requirement of writing, but the concept is nonetheless applicable to procedural requirements of contract.
legal rights, but also to prevent consumer misunderstandings. But contract law and standard business practices have had little time to adjust and develop to handle the virtual and ephemeral nature of cyberspace. Will the long-held traditions and principles of English contract law be flexible enough to accommodate this new commercial medium? Will online contracts be accepted and enforced by the courts?

Even more importantly, will contract law be consistent with commercial norms and practices and will consumers readily comprehend the meaning and consequences of their actions of online? A mismatch between law and practice could result in misunderstandings, injustices, inefficiencies, and added costs. Even more so than mail order catalogue transactions, online transactions predominantly gain competitive advantage through lower prices from the reduction of distribution, intermediary, and overhead costs. Therefore, the margins in electronic commerce will most likely be razor thin and unable to absorb the costs of consumer misunderstandings, disputes, and particularly litigation. Electronic commerce will demand the utmost legal and commercial certainty in online contracts, otherwise its enormous potential will not be fully realized. This means that there will need to be certainty and understanding about the significance of online behaviour, both from the merchant and customer side.

The complementarity between the semiotic approach taken here and law in contracts forms the focus of this paper. Semiotics can be applied to informal matters: how people interpret online actions, how certain signs or actions can lead to contractual obligations, and what assumptions there are about contractual terms and conditions. Contract law, on the other hand, specifies only the formal requirements of contracts. In addition, the law considers outward appearances rather than actual intentions in making contractual rulings, and also frequently considers the assumptions of a ‘reasonable man’.

For the most part, this paper will address consumer contracts made by means of the world wide web. Consumers (parties conducting transactions outside the course of business) are most likely to be confused and unaware of the developing norms, conventions, and laws in electronic commerce. Most of these contracts will involve the sale of traditional goods (e.g. books, flowers, toys, etc.) or digitized services (e.g. software, video, music, and other digital information content.) Technically speaking, English contract law draws distinctions between the sale of goods and the sale of services, but in order to avoid these legal niceties, more generally applicable principles for transacting and contracting online will be discussed.

In Section I the paper discusses the principles of semiotics, and how the use of particular signs, symbols, or actions in a particular context can create moral, social and legal obligations. This section will concentrate principally on the philosophies of John...

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2 The author thanks Mr. Alistair Kelman for this point.
3 The study of semiotics concerns signs and meaning, and how people communicating meaning through a sequence of signs and symbols.
4 E-mail can provide another possible medium for contracts, but the trend is increasingly toward web based commerce since it provides a graphical interface and allows instant, interactive contact.
5 For example, implied contractual terms for the sale of goods and the sale of services differ. Under the Sale of Goods Act 1979, goods are expected to be of satisfactory quality and fit to the purpose for which they are commonly intended. Services, on the other hand, under the Supply of Goods and Services Act 1982 must be performed with reasonable care and skill to the degree expected of an ordinary person in the profession. This two definitions have implications for, inter alia, liability (determination of negligence) and warranties.
Searle and J. R. Austin. Section II examines the English law requirements for contract formation, specifically the phenomena of offer and acceptance, as well as consideration, the intent to create legal relations, and the presentation of contractual terms. As previously mentioned law and semiotics are intimately related, and in Section III the paper brings them together to create a semiotic model for the ‘traditional’ contract. This model suggests what principles should be observed and what elements should be present during the formation of an online contract. Finally, using the model, Section IV makes recommendations and compares them to the purchasing process found on the web site of an online retailer.

I. Signs and negotiation of obligations

Semiotics is “the process of analyzing signs and how they function.”6 In the past, research in the information systems field, including Stamper(1987),7 Backhouse (1991),8 Dhillon(1996),9 and Backhouse(1996)10 have applied semiotics attempting to highlight the role of meaning and culture in communication as traditional work environments move toward the use of information technology. The success of these studies suggest that semiotics could provide valuable insights into constructing online contracting environments.

Liebenau and Backhouse (1990) divide the concerns of semiotics into four levels for analyzing ‘speech acts,’ communication acts such as stating, asking, and most importantly to this discussion, making promises and contracts.11 The four branches are: pragmatics, which addresses the culture and context of the speech act; semantics, which studies its meaning; syntactics, which deals with form and formal rules; and empirics, which examines codes and signal transmission.12 Above and below these concerns lie respectively those of the business itself and those of the physical world

As mentioned in the introduction, the primary motivation of this paper is to study contractual misunderstandings between consumers and merchants in electronic commerce. Thus, semiotics, with its focus on signs and meaning, provides an instructive view of the phenomenon of contract. After all, at the most fundamental level, the contractual process is an exchange of certain signs or symbols (empirics) between two parties. The signs, if performed in accordance with an accepted procedure (syntactics) under the given context (pragmatics), convey meanings (semantics) from which contractual obligations arise, which is the business purpose. This basic semiotic deconstruction of the contractual process is summarized in Table 1.13

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12 Liebenau and Backhouse (1990), p. 16.
### Branch of Semiotics | Application to Contracts
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**Epistemic**
- **Pragmatics** (intentions) | Context, commercial norms and culture, and common practices which affect the expectations, assumptions, and intentions of the contracting parties
- **Semantics** (meanings) | Understandings, agreements and obligations derived from the utterances, gestures, etc. in a given context
**Ontological**
- **Syntactics** (formalisms) | Contracting procedures such as offer and acceptance, or formal requirements such as writing and signatures
- **Physical/Empirics** (signals/codes) | The physical signs used in the contracting process: verbal utterances, gestures, written letters, actions performed on websites, etc.

#### Figure 1: Application of four branches of semiotics to contracts.

Interestingly, using the perspective gained from the above analysis, the contractual process can be split into two major semiotic divisions: ontological and epistemic.\(^{14}\) On the ontological or physical side, contracts involve formal procedures (syntactics) and physical utterances (empirics). However, on the epistemic or ‘thought’ side, contracts require a consumers’ tacit assumptions, which arise from the context (pragmatics), as well as the meanings (semantics) that consumers’ derive from the procedures and signs.

How do the epistemic aspects of contracts arise from the ontological? In other words, how do contracting parties create moral, social and legal obligations by following an accepted procedure when uttering, writing, or electronically displaying appropriate words? These questions are at the heart of contract formation, and the contributing theories of Austin and Searle suggest possible insights.

**Performatives**

To help understand how words can create obligations (doing things with words), Austin offers the concept of a ‘performative utterance.’ As Austin suggests, a performative utterance, or more simply a ‘performative,’ “indicates that the issuing of the utterance is the performing of an action – it is not normally thought of as just saying something.”\(^{15}\) Performatives ‘do things’ rather than merely state the facts, and can be expressed in the first person singular present indicative active, such as ‘I give’ (in the context of a will), ‘I name,’ ‘I bet,’ and more important to this discussion, ‘I promise,’ and ‘I agree to.’\(^{16}\) Performatives can be accomplished using other sentence structures or even non-linguistic actions (gestures, signs, etc.), but will almost always reduce to the explicit form above (first person singular present indicative active). For example, by

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signing one’s name on a contract or shaking hands on a deal, a party may not necessarily explicitly say ‘I promise,’ but implicitly he/she does so nonetheless.

In the execution of a performative, a person attempts to create a new element of social reality, such as an obligation or an expectation that previously did not exist. Naturally, this process is the essence of contract. However, whether the performative act is successful and recognized by others depends on whether the circumstances and context are appropriate. Austin proffers three necessary conditions for a performative to be effective.

a) A conventional procedure must exist for achieving the effect desired, and the circumstances must be appropriate for using the procedure.
b) The parties must execute the procedure fully and correctly.
c) If the procedure requires certain attitudes or mindsets (e.g. sincerity), the participants must have them, and act in accordance with them in the future.¹⁷

Violating the conditions results in ‘infelicities,’ situations in which the performative either fails to achieve its purpose or is defective in some manner. Infelicities apply to all performatives, verbal and non-verbal; it “is an ill to which all acts are heir which have the general character of ritual or ceremonial…”¹⁸ For example, in the case of contracts, the law sets a conventional procedure for contract creation, which requires *inter alia*, offer and acceptance. If the procedure and associated requirements are fulfilled completely and correctly, then a valid contract exists. However, if the circumstances are inappropriate (e.g. the party is under duress, or the subject matter is unconscionable or against public policy), then the contract will be invalid.

Another example of an infelicity is where at least one participant may be insincere or may lack intent - "I did not really mean it, I was only joking". In this latter case, the ‘locutionary’ act, the actual words uttered and the meanings conveyed, conflicts with the ‘illocutionary’ act, the force or intent behind it, creating a defective performative. Because the law recognizes outward appearances rather than internal intent, a valid contract forms. However, the inconsistency between locutionary and illocutionary acts may create disputes and litigation, clearly still an undesirable or ‘unhappy’ result.

In his own analysis on the process of promising, Searle offers a different, more specific set of necessary conditions. These conditions are shown in Figure 2 below.

1. Normal input and output conditions exist. Both parties can physically transmit and receive intelligible information, and the communication is done seriously (not in jest or as part of a drama, show, play, etc.)
2. The speaker expresses a promise in the utterance.
3. In the promise, the speaker affirms his/her willingness to perform some future act.
4. The hearer prefers the speaker to perform the promise, and the speaker believes this condition to be true. (Otherwise, it would be a threat).
5. Both parties believe that the speaker would not have otherwise performed the promised actions in the normal course of events.
6. The speaker intends to perform the promised act. (sincerity)
7. The speaker intends that the utterance of the promise will place him/her under an obligation to perform the promised act. (intention to comply)
8. The speaker intends that the utterance will induce the hearer to believe that conditions 6 and 7 hold true.
9. The sentence used by the speaker is one which is properly (normally) used to make promises in the relevant language.

**Figure 2: Searle’s conditions for promise.**

Though more specific and detailed, Searle’s analysis is highly consistent with Austin’s broader framework (presented earlier). Conditions 1-3 satisfy Austin’s requirement for completely and correcting adhering to an implicitly assumed conventional procedure for promising. Conditions 4-5 are analogous to the requirement of appropriate circumstances, and 6-7 satisfy the need for proper attitudes and mindset (i.e. sincerity and intent). Conditions 8-9, as suggested in Liebenau and Backhouse (1990) are generally applicable to all communication or speech acts, and are thus not particularly interesting here.

At first glance, two minor deficiencies may seem to appear in Searle’s necessary conditions, but they are easily resolved. First, unlike Austin, Searle does not explicitly require the existence of a conventional or well-accepted procedure for promising. However, as previously mentioned, Searle implicitly assumes that the procedure exists, and given the familiar nature of promising, the standard procedure for promising (i.e. the utterance of certain words, such as ‘I promise that’) seems obvious enough. Second, since Searle’s analysis specifically pinpoints intent and sincerity rather than broadly encompassing all proper mindsets, it does not seem to preclude other infelicities such as duress. However, a closer examination shows that the broadly constructed condition 1, normal input and output conditions, quickly disposes of this problem. The notion of normal implies a pre-existing practice or pattern of behaviour, which is present in traditional commerce but still awaited in e-commerce.

**Institutional facts and constitutive rules**

The concept of a performative sentence provides a useful analytical perspective by showing how certain words, if uttered under appropriate circumstances, can create contractual obligations. However, the discussion still does not fully answer the original question of how utterances or actions lead to contractual obligations. After all, who sets Austin’s conventional procedure? And how does a society come to recognize an

20 Liebenau and Backhouse (1990), p. 33.
individual’s actions as constituting a promise or contract? To resolve these questions, one needs to build on performative acts and examine Searle’s concepts of institutional facts and constitutive rules.

Searle distinguishes between two types of facts: ‘brute facts’ and ‘institutional facts.’ Brute facts exist independently of any human institution. For example, the ink and paper with which some contracts are written have intrinsic chemical properties. Those properties are brute facts; they exist irrespective of the observer.

Unlike brute facts, which are intrinsic to the physical world, institutional facts are part of a socially constructed reality: rights, duties, commitments and responsibilities. Indeed, the existence of institutional facts depends on ‘collective intentionality,’ the ability of people to behave cooperatively and to share common beliefs, understandings, and intentions. Individuals and social institutions must recognize a particular piece of paper to be, say, a contract or a twenty pound note. Otherwise, it is merely a piece of paper with ink. In the semiotic deconstruction this is a requirement at the pragmatic level.

By properly uttering performatives, people can create institutional facts such as contracts. But how do simple performatives such as ‘I promise’ lead to serious contractual obligations? To accomplish this transformation, society uses the power of ‘constitutive rules.’ Unlike ‘regulative rules’ which limit or prohibit actions that people can intrinsically perform (i.e. rules or laws against robbery or burglary), constitutive rules enable people to create new social institutions or institutional facts.

Constitutive rules have the form “X counts as Y in C.” At the most basic level, a constitutive rule allows X, some brute fact or physical action under certain contexts and circumstances C, to simply ‘count as’ Y, some institutional fact.

Owing to the requirement of collective intentionality, only society (or any collective group) has the power to recognize institutional facts. Consequently, society necessarily also has the power to determine the constitutive rules and the conditions under which an institutional fact may be created. In the case of contracts, the law embodies the constitutive rules. Contract law specifies the requirements and conditions (C) under which certain utterances, writings, or gestures (X) constitute a legally binding contract (Y).

This last observation has led to a slightly surprising, but very desirable result. Normally, as in the case of more informal institutional facts such as promises, the constitutive rules are not codified or formalized, but nevertheless exist. Consequently, the

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21 Searle (1990), p. 27.
22 Ibid., p. 43.
23 Constitutive rules can build upon each other to create increasing complex social realities. Thus on a subsequent level, X could be a basic institution or institutional fact (e.g. a citizen) and Y could be a more abstract institutional fact (e.g. President or candidate) with C changing appropriately (e.g. winning an election). Searle (1990).
24 Searle (1990), p. 45.
requirements are often vague and require more broadly defined necessary conditions, such as those found in Searle’s conditions for promise (Figure 2). However, contract is different. Contract is a formal, legal concept with its constitutive rules perforce well-codified in contract law. Undoubtedly the formal legal concept of contract was preceded by millennia of less formally determined agreements, replete with attendant misunderstandings and unpleasant retribution: think of the centuries of domestic conflict turning on betrothal promises, presumed and denied.

This conclusion suggests that any semiotic model of the contracting process can confidently use the abstract legal requirements of contract as a bridge between the traditional practices of the business world and electronic commerce. Therefore, a useful tool for abstracting a semiotic model for contracts is, appropriately enough, English contract law.

II. Contract Law

As we have seen English law requires four elements to form a valid contract: offer, acceptance, consideration (something of value), and an intent to create legal relations. The courts often view these four elements as fundamental to contract, so even though they are not absolute requirements, failure to satisfy any one of them often results in a court refusing to enforce the contract.

To allay fears regarding formalisms, such as writing or signatures, English contract law has few rigid requirements. Contracting parties typically may form contracts in any available manner, including verbally in-person, by telephone, written document, telex, fax, and even by conduct. Accordingly, English law will not debar people from forming legally binding contracts through electronic mail (e-mail) or the world wide web as part of an electronic commerce transaction.

English courts will often rule that if a reasonable person were to interpret a particular action or communication as a contractual element, then it is binding, regardless of whether the party intended it or not: there is assumed to be a rational connection between actions and intentionality.

Agreement . . . is not a mental state but an act, and, as an act, is a matter of inference from conduct. The parties are to be judged, not by what is in their minds, but by what they have said or written or done.

The rationale behind this doctrine principally stems from a court’s inability to judge what a person internally intends. The only feasible method for determining intent is through external manifestations, and thus appearances are legally more important than the actual intent. However, if intent belies external appearance, then disputes and misunderstandings will arise.

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26 English law generally no longer requires the use of writing or signatures in contracts (ever since the Statute of Frauds 1677 was repealed by the Law Reform (Enforcement of Contracts) Act 1954). Thus, the semiotic aspects of contractual formalisms such as writing and signatures will not be discussed in this paper. They may, however, prove an interesting study in the future.
To prevent such miscues, traditional business practices utilize contracting procedures that extirpate any semantic uncertainty. Merchants will often use the four elements of contract as procedural or ceremonial devices to reinforce and ensure that customers understand the full import of their actions. Thus, a further examination of contract law, in both legal and procedural/semiotic senses, is necessary before one can develop a model to aid electronic commerce transactions.

**Offer**

An offer expresses the desire to enter into a contract on the understanding that if the other party accepts the offer, the agreement will be legally binding. Just like the contracts they help form, offers can be made using virtually any medium of communication. Contracting parties can make offers by post, fax, telex, telephone, etc. In cyberspace, these methods extend to e-mail and the world wide web.

A fine distinction separates offers from invitations to treat, which are merely “offers to receive offers.” Promotional devices such as advertisements, price lists, and store displays are invitations to treat, not offers in themselves. As the court held in *Pharmaceutical Society of Great Britain v Boots Cash Chemists (Southern) Ltd.*, it is a well-established principle that the mere exposure of goods for sale by a shopkeeper indicates to the public that he is willing to treat but does not amount to an offer to sell. . . . The customer is informed that he may himself pick up an article and bring it to the shopkeeper with a view to buying it, and if, but only if, the shopkeeper then expresses his willingness to sell, the contract for sale is completed.

The concept of an invitation to treat allows merchants to retain control, because they alone have the final decision on whether to create a contract or not. A number of good reasons exist for online merchants to conform to this present commercial practice and to ensure that their advertisements, price lists, and pre-constructed order forms on the web are construed as mere invitations to treat. First, merchants necessarily have a limited available supply of products. If web advertisements were offers, then all customer acceptances would create contracts, and the merchants would then be legally liable to find additional supply and to sell it at exactly the advertised price (perhaps at a loss). Second, merchants need the ability to refuse certain customers, whether for age, jurisdiction, creditworthiness, etc. For example, the export of certain cryptographic products is heavily controlled, and merchants will want to be able to refuse customers in other jurisdictions without the danger of litigation for breach of contract. Finally, web pages can become garbled or distorted by incompatibilities in web browser formats or transmission faults. Even though the merchant will normally not be held liable for errors (if the receiver had reason to suspect a problem), this extra leeway is certainly welcome.

To maintain the traditional invitation to treat distinction, online merchants could use simple disclaimers defining the online advertisements or displays as invitations to treat and not offers. However, textual legalese in cyberspace is often not seen (because it falls outside the viewable window) or ignored, and here custom and practice is gradually still being set. Therefore, even though this solution may absolve the merchant of any

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29 Here, ‘semantic’ is used because it deals with the study of meaning. ‘Semiotic’ is the entire sign process.
30 *Carlill v Carbolic Smoke Ball Co [1893] 1 QB 256.*
31 *Pharmaceutical Society of Great Britain v Boots Cash Chemists (Southern) Ltd. [1951] 2 QB 795.*
legal liability, it is does not prevent consumer misunderstandings or disputes. Hence the formal requirements of legal niceties are satisfied, but the practical and informal realities are not. To ensure consistency, the disclaimers will need to be supplemented by online ordering procedures that mimic or are analogous to those found in the traditional environment.

Acceptance

If the offeree accepts an offer, a contract is formed. An acceptance is an unconditional agreement to the offer presented. It cannot be a message merely notifying the offeror that the offer has been received (c.f. acknowledgement), nor can the acceptance attempt to change the contractual terms (c.f. counter offer). Again, just as in the case of an offer, an acceptance can be communicated using any viable method, as long as it is ‘reasonable’ under the circumstances. Consequently, if a consumer makes an offer through a web site, the merchant (offeree) can validly accept the offer through a variety of methods, including the following:

Automated acceptance. Under English law, the merchant can automate the acceptance process. For example, in the case of online software ordering, the web server could immediately accept and then transmit the software after the consumer’s order was received. However, automated acceptances can be detrimental, since they eliminate the vendor’s ability to screen customers (as discussed above). Another danger is that consumers can misconstrue poorly constructed “thank you for your order” confirmation web pages or e-mails as acceptances, even though none was intended. Again, since the legal liability hinges on external acts and not internal intent, careless merchants could find themselves liable. In addition, even if no legal obligation exists, misunderstandings can lead to consumer dissatisfaction, disputes, and litigation - contingencies that merchants obviously wish to avoid.

Acceptance by conduct. For the sale of tangible goods, the web merchant can accept offers like a traditional mail order house. The consumer submits the offer via the web, and then the merchant accepts and forms the contract by sending the order to the customer. As affirmed in G. Percy Trentham Ltd v Archital Luxfer Ltd and Others, “a contract can be concluded by conduct.”

Acceptance by click-wrap. Further, acceptance can be effected through ‘click-wrap’ agreements. A click-wrap is where the contract is presented in a window online, and the customer is asked to click an ‘I accept’ (or more preferably, an ‘Offer’) button to accept (or offer) a contract. Although English courts have not yet dealt with click-wrap agreements, a United States District Court in Hotmail Corporation v Van Money Pie Inc held them to be enforceable in America. Based on the similarity of contract doctrine between American and English law, an English court will probably similarly recognise click-wrap contracts.

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33 Depending on how the courts interpret a web site or other online advertisement (as either an invitation to treat or an offer), the consumer’s placement of an order could be either an acceptance or an offer. However, future discussion will assume that proper construction of the web site will necessitate that the consumer makes the offer, and the merchant has the option of accepting.

34 The court in Thornton v Shoe Lane Parking ruled that customers could contract with car park machines, which represented the car park owners. Thornton v Shoe Lane Parking [1971] 1 All ER 686.


All the above methods of acceptance for online merchants have analogs in traditional commerce. Automated acceptance is found at car parks and vending machines. As already mentioned, acceptance by delivery is common practice among mail-order merchants. Click-wrap is similar to reading an agreement or credit card receipt and signing it, although arguably it does not have the same ceremonial weight. Therefore, using these acceptance methods may lessen the possibility of disputes and litigation in electronic commerce.

**Consideration**

Consideration is the element which typically transforms a mere promise into a legally binding contract, embodying the common law belief that only bargains should be enforced. It is often defined as the exchange of something of value, but may also include any detriment to the promisee or benefit to the promisor. In order for a binding contract to exist, the promisee must pay or give something to the promisor in return for the assurances, goods, services, or other benefits which he/she receives.

Historically, English courts have broadly interpreted the consideration requirement, and often will even ‘invent consideration,’ or regard something as consideration even though the promisor did not necessarily want it. In addition, the amount of consideration is irrelevant; determination of what constitutes ‘proper’ compensation is left to the contracting parties. Consequently, the requirement of consideration is usually easy to satisfy. Indeed, for normal commercial transactions (both traditional and electronic), consideration will almost never pose a threat to contract validity. The goods, services, or digitized services provided by the online merchant and the payment given by the customer fully satisfy the requirement of consideration.

By requiring the exchange of something of value, consideration increases the probability that the parties will more carefully consider the agreement. Consideration helps eliminate situations where a party promises in jest (compare with rules 6 and 7 in Searle's conditions) or makes an offer in passing without thoughtfully considering the consequences. It also prevents the creation of liability in informal situations where no legal obligation was ever intended (see also next section on intent). Traditionally, the exchange of money or even the mere mention of money alerts the parties to the seriousness of their actions. After all, consumers typically will not give their credit cards or credit card numbers to merchants unless they intend to make a purchase. Thus consideration, embodied in a semiotic procedural device, can prove useful for eliminating disputes in the online environment.

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37 Cheshire, p. 74.  
38 Chitty, 3-008.  
Intention to create legal relations

The final criteria for contract formation, the intent to create legal relations, is also easily satisfied under most circumstances. Indeed intention is automatically presumed in a commercial transaction with an explicit contract, and the onus of proving otherwise “is on the party who asserts that no legal effect is intended, and the onus is a heavy one.”

However, even though the question of intent in traditional commerce is normally trivial, it remains an extremely important factor in online contracts. Indeed, this concern over whether online consumers understand the implications of their actions lies at the heart of the discussion of this paper. A website lacking transparency of the meanings associated with online actions can result to the disadvantage of both parties in consumers creating unwanted contracts. For example, an online merchant offering a digitized service constructs a makeshift website which gives no purchasing information, merely displays the product, and offers a “Save” or “Download” button. An unsuspecting customer, probably assuming that the service is free, clicks on the button. If the merchant later tries to collect payment from the customer, a dispute will almost certainly arise, leading to increased cost and frustration on both sides. The above example is an extreme case used to illustrate a point, but one can clearly imagine more subtle cases where uncertainty in the contracting process will lead to disputes.

Beyond the procedures already discussed to ensure intent (e.g. a well-defined offer/acceptance process and the ceremonial use of consideration), online merchants might consider another device to avoid disputes -- a ‘last chance’ screen. After proceeding through the sequence of web pages concerning the transaction, the consumer should be presented with a ‘last chance’ screen that all of the major terms (consumer’s address, price total, quantity of goods, etc.). At this point, the consumer either submits the offer or cancels it without any legal implications. Establishing this purchasing framework will prevent misunderstandings of meaning and intention, and lead to greater legal enforceability as well.

Presentation of terms

One final concern in the contractual process is the presentation of contractual terms. Most consumer contracts do not form after prolonged discussions and negotiations over specific terms and clauses. Rather, they are generally standard form contracts, pre-drafted by the merchant to protect his/her own interests. The consumer receives the terms only at the time of purchase.

However, the terms and conditions in a standard form contract will have no effect unless the customer is given ‘notice’ of them before the contract is formed. For example, in Olley v Marlborough Court Ltd, the court held that a contract for a hotel room, having been agreed to and signed at the hotel’s reception desk, was not subject to terms found on a notice inside the bedroom. As suggested by Lord Denning MR in Thornton v Shoe Lane Parking, “the customer is bound by the . . . conditions if he knows...
that the ticket [contract] is issued subject to it; or if the company did what was reasonably sufficient to give him notice of it.”  

In traditional commerce, giving a consumer ‘notice’ of the terms was usually a straightforward task. Often, merchants print the terms on the back of the order form, and in some cases, may require consumers to sign underneath, signifying that they have read and understood them. In other instances, the sales representative may explicitly state important conditions of the sale. These traditional methods of giving ‘notice’ are well-known and understood by consumers, and thus present little in the way of semiotic ambiguity.

In order to maintain similar levels of semiotic certainty, the electronic commerce environment needs to develop analogous methods for giving ‘notice.’ The following list describes a number of possible methods in increasing order of substantiality (i.e. greater notice to the customer). One should be mindful, however, that merchants will need to balance legal and semiotic certainty with the resulting attractiveness of their web sites. After all, the web pages are there to promote and sell goods (not as a legal or semiotic exercise), and dense blocks of legalese could be off-putting. Although semiotic clarity should reinforce rather than undermine the force of the legal commitments embodied in the web site.

**Reference Statement with Hyperlink.** Merchants can include a statement such as “This contract subject to Company’s standard terms and conditions” at the bottom of the online order form. This statement would be linked to a page detailing the standard terms. The technique is popular with many current web merchants because it achieves some legal credibility without substantial disruption of the promotional or commercial aspects of the order form or web page.

However, the legal and semiotic benefits of this method are debatable. In one sense, it alerts the customer to the existence of terms and makes them available for inspection. Thus, the reference statement with hyperlink is similar to the ‘See back’ notice in *Parker v South Eastern Railway.*

In *Parker,* the court held that the statement ‘See back’ on the front of a ticket with the terms on the back constituted sufficient notice. Alternatively, one could criticize the reference statement with hyperlink method because the hyperlink seemingly hides the terms from the customer. The mere accessibility of the terms does not necessarily induce a consumer to examine them. The situation may be comparable to the US case of *Microstar v Formgen,* where the court admonished the merchant for putting restrictive terms in a separate file, LICENSE.DOC, that the customer did not necessarily view.

**Display Terms at Bottom of Page.** Instead of hyperlinking the standard terms and conditions, the merchant could stream the whole text at the bottom of the order form or web page. Since the terms are conspicuously displayed, the method has greater legal and semiotic weight. However, it could easily make the web page visibly unattractive, and the consumer could miss the terms (because it is off the immediate screen) or ignore them. Furthermore, users still remain passive participants, and do not demonstrate that they have had the opportunity to read the terms and conditions.

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45 Thornton v Shoe Lane Parking, [1971] 2 QB 163 at 170.  
46 Parker v South Eastern Railway (1877) 2 CPD 416.  
Dialogue Box – Perhaps one of the most elaborate display mechanisms is to create a dialogue box that forces the user to scroll through the terms and conditions before clicking ‘I agree’ or ‘I have reviewed these terms.’ This method is analogous to the traditional process of presenting a customer with the terms and conditions and then requesting a signature to signify that the customer has reviewed them. 48

The approach is rather draconian and commercially unattractive, since the consumer must waste time scrolling and is confronted with huge blocks of legalese. However, the method is legally and semiotically powerful. Consumers are not just given the opportunity to review the terms; indeed, they are forced to review them, and even have to agree through a positive action, the ‘click.’ Although there is the ever-present danger of customers simply "going through the motions" in a mechanical fashion they would clearly recognise that the contract was subject to certain terms and conditions, reducing the probability of dispute or misunderstanding to a minimum.

III. A Model for Consumer Contracts

So far, the principal problem has been ensuring consistency between the empirical and syntactical (procedural and formal) aspects of the contractual process and the actual meanings that a customer derives from them. As Liebenau and Backhouse suggest,

If in social exchanges different significations are given then communication breakdown will result. 49

Signs by themselves do not have inherent meanings. 50 The meanings surface over time through an evolutionary process, and are associated with certain contexts and other informal cues. In the traditional commercial world, consumers understand and are familiar with the procedures involved in forming a contract or making a transaction. The meanings that each person derives from those procedures are essentially uniform, and thus relatively few semiotic problems are encountered. However, electronic commerce represents a new, unexplored, and unfamiliar commercial environment. The standard contracting procedures themselves are not widely known (or not yet developed), and thus the probability of semantic ambiguity is high.

One way for merchants to reduce misunderstandings and disputes is to ensure that the online contracting process is reasonably similar or analogous to the traditional. Using English contract law as a basis, analysis can abstract the traditional contractual process into its essential elements. The resulting model can then be used to guide decisions and recommendations on how to construct a semiotically consistent and legally effective online contracting process. As previously mentioned, the study of semantics 51 deals with meanings, or to what signs refer. One effective technique for performing semantic

48 Under L’Estrange v Graucob [1934] 2 KB 394, if the customer signs the contract, then all specified terms are effective, regardless of whether the customer is given notice. Legally, whether a button-click is equivalent to a written signature (in terms of its assent, not authentication function) is unknown. Semiotically, a button-click is probably a weaker procedure compared to a written signature, since button-clicks are required for mundane tasks (i.e. hyperlinking, closing windows, etc.) in addition to serious contractual tasks.
49 Liebenau and Backhouse (1990), p. 40.
50 Ibid., p. 43.
51 For a detailed analysis and explanation on semantic analysis, the reader is referred to Backhouse (1991).
analysis is to create a schema or framework showing the relationships among all elements involved. Because of its abstract form, a schema is generally applicable and offers a lot of stability. From the generalized speech acts modelling can describe most contract formation processes. For example, in a traditional, face-to-face contract, the generic act of “invitation to treat” is represented in the “store display;” “offer” becomes “selection and presentation of merchandise;” and acceptance becomes “cashier accepts payment.” Thus, the schema could aid online businesses wishing to design clear and complete websites. Figure 4 shows this transformation, as well as the application of the model to mail order purchases.
Avoiding confusion and lack of understanding about the implications of actions online is a paramount concern for electronic merchants. The key actions include invitation to treat, offer, acceptance, consideration, intent, and the presentation of terms. If miscommunication occurs at any of these points, disputes will likely arise, or worse still, the contract may be legally invalid. To minimize the possibility of these problems occurring in electronic commerce, the list below provides a number of suggestions culled from existing practice for each action.

Invitations to treat – Alluding to the traditional practice of selecting products off the shelf (whose price tags are invitations to treat), some form of online ‘shopping cart’ could prove useful. A number of online stores, such as Amazon Books, have electronic shopping carts, which store all selected items until the customer proceeds to the ‘check-out.’ In addition, to stop unwanted customers (whether by virtue of age, place of residence, etc.), an online business might consider a home page banner such as “US Residents only,” or “Adults only.”

Offer – To emphasize that the consumer (and not the merchant) is making the offer, the web site might consider an online order form, reminiscent of mail order purchases. Merchants could also mark submission buttons as ‘Submit order’ or ‘Submit offer,’ rather than the ambiguous ‘Yes’ or ‘OK.’

Presentation of terms – In order for standard terms and conditions to be valid, online merchants need to present them to customers prior to or at the time of ordering. Currently the most effective method is to create a dialogue box where customers must scroll down and then click a button signifying that they have reviewed the terms. In any case, the key concern is that standard terms should be available and prominent. It is worth noting that if the standard terms are on the invoice of the shipment, they are invalid, because they are presented after the contract forms.

Acceptance – In some cases, such as immediately downloadable digitized services, automated acceptance will be necessary. However, where possible, merchants should delay acceptance to maximize their ability to screen customers. In most cases, delaying acceptance would mean following the mail-order practice of ‘acceptance by

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conduct’ (delivery). Consequently, any confirmation e-mail or web page should clearly specify that it is an acknowledgement of the order only and not an acceptance.

Consideration – For most web sites, consideration will not present a problem. The available goods will have associated prices, and the merchant probably will not ship the goods until he/she receives payment in full (by credit card or otherwise). However, providers of digitized services should ensure that prices are displayed and credit card numbers (or electronic cash) are received before transmitting data.

Intent – If all the above steps are rigorously followed, intent is probably unquestionable. However, as a final safety catch, the web site might provide the consumer with a ‘last-chance’ page. On this page, the consumer can verify all the details of his/her order and then either submit the order or cancel it with no residual legal ramifications.

Conclusion

In summary, this paper has explored the semiotic and legal aspects of traditional and online contracts. It first applied semiotic and speech act theory from philosophers such as Austin and Searle to explain how words and actions can create legal obligations. Essentially, people use certain speech acts called performatives to create institutional facts, constructs that have no physical basis and exist only by societal recognition. The creation of these institutional facts is governed by constitutive rules, which for the case of contracts are codified in contract law. This result suggests that the legal requirements for contracts provide a theoretically suitable structure for modeling the contract creation process.

Section II examined English contract law and its requirements: offer, acceptance, consideration, and the intent to create legal relations. One other significant requirement is that contractual terms must be presented prior to agreement. These five areas constitute a standard sequence of events leading to contract formation and thus ensure, with appropriate account taken to avoid semiotic uncertainties, that both parties understand the legal ramifications of their actions.

The junction between semiotics and law examined in this paper offers many opportunities for future study in the future. Most significantly, the models of contract creation are still very limited and preliminary, and need to be further expanded in scope. In addition, the success and applicability of the models remains undetermined. Amazon Books is only one online seller out of thousands in cyberspace, and a model applicable for booksellers or sellers of tangible goods may not be entirely suitable for digitized service providers, although core features will persist. Future work could perform case studies, testing the applicability of the model to different firms and industries. Alternatively, studies could look at the long-term success of using a semiotic model for constructing an online contracting process.

The mantra is intoned time and again: electronic commerce has the potential to fundamentally change the business landscape. With its lower overhead and transaction costs, electronic commerce will enable consumers to obtain goods and services cheaper, faster, and more conveniently. However, in order for those savings to become a reality, online business will need to reduce their profit margins and thus will not be able to absorb the costs related to dispute resolution and litigation. By applying a combination of
Semiotic and legal theory, models can help online businesses reduce the probability of misunderstanding, making life easier for both consumers and businesses. More clarity will also encourage new users to explore the cyberspace market, helping to bring nearer the day that global electronic commerce becomes reality.
Fig 3: Semantic Analysis of contract formation

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